



May 2005

# *The ANS Globe*

*...e-news from the ANS International Committee*

## **From the editors**

The ANS Globe is the Bulletin of the American Nuclear Society's International Committee. This is the 3rd issue of the recently resurrected ANS Globe. The ANS Globe has as its mandate the dissemination of news of international interest to International Committee members and to others. Please send us letters, articles, and/or comments for consideration towards the next issue.

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## **From the Chair**



Dear friends,

Are we on the way to a “nuclear renaissance” worldwide? Recent convergent signs seem to give credit to this feeling, although prudence and lucidity are of course necessary.

An International Ministerial Conference on “Nuclear Power for the 21<sup>st</sup> Century” held in Paris last March by the International Atomic Energy Agency (IAEA) in cooperation with the Organization for Economic Cooperation and Development (OECD) and the Nuclear Energy Agency of the OECD, with the participation of some 74 States and 10 international organizations, set the mood for a rising optimism that nuclear power can help meet the planet's growing energy needs. At that conference, the U.S. Energy Secretary stated that “U.S. interest in, and support of, nuclear energy has never been stronger”. This statement echoed President Bush's call to the Congress in his address on the State of the Union in February to pass the energy bill prepared last year.

In Europe, after Finland's decision to build an EPR reactor, France's utility EDF has followed a similar path, ordering an EPR unit of 1600 MWe.

In Asia, Japan and Korea are steadily pursuing their nuclear programs, while China has recently announced, as part of its ambitious energy strategy, its decision to build 40 new nuclear power plants (40 000 MWe) by 2020, in order to meet its increasing national energy needs.

This favorable trend must continue to be mirrored in our ANS international undertakings, and the ANS Globe is a unique vehicle for this purpose.

For instance, you will find in this issue the Finnish presentation by Dr Anneli Nikula from TVO, as well as news from sister Societies. I urge all our members and in particular those representing Asian countries to provide the editors with news on their international cooperation projects.

Moreover, in order to give you more accurate information on the international role of the Society, a specific subcommittee is working with the ANS webmaster to refurbish and update the international homepage with an increasing visibility and access.

Let's meet in San Diego to discuss these exciting projects and create new opportunities.

## News from Sister Societies

- Dr. Shih-Kuei Chen, of the Science and Technology Division, Taipei Economic and Cultural representative Office, sent a status report from the [ANS Taiwan Section](#) for presentation at the ANS International Committee meeting of November 14, 2004. Founded in 1980, the ANS Taiwan Section now has 81 members and 8 supporting organizations. Dr. Li-Fun Lin (Institute of Nuclear Energy Research) is the current Chair of the Section, 2004-2005. Mr. An-Hong Jeng (Taiwan Power Company) is the Chair-Elect. Executive Committee meetings were held in January, April, and July 2004.



- ANS President-Elect James S. Tulenko visited Taiwan on April 29, 2004, and gave a presentation at the Atomic Energy Council on the “Outlook for Nuclear Power Engineering in the USA: Resurgence of USA Interest in Nuclear Technology”. The 25<sup>th</sup> Annual Meeting of the Section was held August 5, 2004, at the Fourth nuclear Power Plant Lung Men site.
- International Committee [Chair France Brès-Tutino](#) sent a status report from the [French Section of the ANS](#). The French Section has a membership of nearly 250, representing government agencies such as the Atomic Energy Commission (CEA), the national Utility (Électricité de France), and the Areva Group of companies active in power-plant engineering and construction (Framatome ANP), in the fuel cycle (Cogema), and in research reactors (Technicatome). The ANS French Section is integral to the larger French Nuclear Energy Society (SFEN) and is in effect the international group of the national society, in charge of the relationship with the USA.

- Several members of the Section are Board members of the ANS or serve as Chair or on the Executive of ANS National Standing Committees or Professional Divisions.
- A Technical Tour to France for US Nuclear Engineering Professors is in preparation for 17-23 July 2005 (this is the 6<sup>th</sup> such Tour). The program will be focused on Management of the Back End of the Nuclear Fuel Cycle, and will include technical tours, e.g., to the Cogema/La Hague Reprocessing Plant, the Soulaines Low-Level-Waste Disposal Facility, the CEA/Marcoule Center including the Phénix Reactor and the **Atalanta** Facility, the Melox plant for MOX fuel fabrication . In 2004, two Young Nuclear Engineer Awards were presented, to Enrico Girardi and Fabien Joly, who were able to attend the PHYSOR 2004 Topical Meeting thanks to the grant they received, which covered travel expenses, registration fee and accommodation.
- **Mr. Mekki-Berrada**, President of the Moroccan Association of Nuclear Engineers (Association des Ingénieurs en génie atomique du Maroc, AIGAM) sent a report to the ANS International Committee. The AIGAM proposes to organize a scientific conference in collaboration with the ANS and the CEA. Its purpose would be to enhance co-operation with international partners in promoting the expansion of nuclear technology in the Kingdom of Morocco, and the peaceful uses of nuclear energy. The AIGAM met with ANS International Committee Chair France Brès-Tutino in September 2004 and **in March 2005** in Paris to discuss this proposal. The CEA has already accepted to co-sponsor the event. The President of AIGAM takes this opportunity to invite the ANS President **as well as ANS Officers** and will organize meetings with representatives of nuclear activities in Morocco. The AIGAM would be grateful for a presentation by ANS Officers. The proposed date for the Conference is November 24-25, 2005, and the venue will be the Hilton Hotel in Rabat. A preliminary Conference Program has been drawn up, which will include power and non-power aspects of nuclear technology:
  - Advanced reactor designs
  - Applications of nuclear radiation
  - Research reactors
  - Scientific studies carried out in Morocco
  - Visit to the Maâmora Nuclear Center
- **Prof. Mauro L. Bonardi**, University of Milano, Chairman of the Radiochemistry Division of the Italian Society of Chemistry and fellow of the National Institute of Nuclear Physics, communicates that a renewed interest for nuclear energy and applications of the energy of the nucleus is growing in Italy. The total electrical capacity of Italy is 54 GWe and 18% of this electricity is nuclear and is imported from abroad. A recent 2005 survey of readers of the main Italian newspapers found that 60 to 70% of Italian citizens are in favor of restarting nuclear-power programs. The Italian electrical company ENEL bought 66% of Slovenske Elektrarne (Slovakia) in November 2004. ENEL and Edison (the National Companies for Electricity) have set an agenda for joint projects with EDF (France), including nuclear ones. Ansaldo Nucleare and several Universities are involved in the international project IRIS. A

number of cyclotron facilities for radionuclide production and labeling of PET radiopharmaceuticals has been installed in Nuclear Medicine departments and Research Centres. Sadly, the vice-president of AIN (Associazione Italiana Nucleare) Prof. Carlo Salvetti, passed away on February 11, 2005, at the age of 86. During his outstanding career he was Vice-President (1963-1980) of CNEN (Comitato Nazionale Energia Nucleare, Italy), ENS President (1979–1981) and Director of the IAEA's Division of Research and Laboratories.

## President Tulenko's Historic Landmark Award Presentation to AREVA La Hague Plant

The ANS has awarded its Nuclear Historic Landmark Award to the La Hague industrial complex in France. At a ceremony held on April 25, **Anne Lauvergeon**, Chairman of AREVA's Executive Board, received this award from President Tulenko who went to France on this occasion.

*“The La Hague Plant has shown that it is technically feasible to treat used fuel from around the world on an industrial scale. It is a sustainable solution for the management of used fuel and nuclear waste”*, said President Tulenko.



Actually, since 1976, R&D teams from AREVA and the French Atomic Energy Commission have been working to improve the production capacity of the plant which boasts many “world firsts” among its 40 workshops, notably the TO used fuel dry

unloading workshop, the T7 vitrification workshop and the ACC hull compacting workshop where the nuclear waste volume is reduced.

Due to the ongoing optimization and innovation efforts and thanks to its customers' unflinching trust, the plant has treated more than 20,000 metric tons of used fuel from nuclear reactors in Europe and Japan. This is the equivalent of 10 years of nuclear electricity consumption in the US.

According to Anne Lauvergeon, *"Treating used fuel reduces the volume of final waste by a factor of five, with 96% of the used fuel being recycled. This an area in which AREVA's technological expertise is unrivalled. With this award, the ANS is recognizing the professionalism of our teams"*.

In addition, **Paul Longworth**, DOE's Deputy Administrator for defense nuclear nonproliferation, noted that *"we could not hope for a better partner in promoting nuclear power and nonproliferation than AREVA"*, adding that facilities like La Hague will *"usher in a new age of energy and economic security"*. He also thanked AREVA for the *"flawless"* recent shipment of four lead MOX assemblies from France to the United States, where they will be used in Duke's Catawba plant for testing.

Longworth read a congratulatory letter from Energy Secretary Sam Bodman, who could not attend the ceremony:

*"Many of our international programs are a success because of AREVA 's excellence"*, he wrote. *"We, at the DOE, look forward to continuing our productive relationship"* with the company.

Note that the La Hague Facility was nominated by the French Section of the ANS.

## **Highlights from the 2004 November Washington Meeting**

### ***The New International Mini-Forum***

Chair France Brès-Tutino had invited two speakers to this Mini-Forum on the agenda of the International Committee Meeting held in Washington.

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- **The first speaker was Dr. Jiri Suchomel**, then Secretary General of the Slovak Nuclear Society (SNUS), who gave a very interesting presentation on SNUS and on Nuclear Power in Slovakia.

**[Editors' Note: The ANS Globe was saddened by the news of the sudden passing of Dr. Suchomel in 2005 January.]**

The SNUS was established in 1990, together with the Czech NS (ČNS), following the *Velvet Revolution*. The SNUS and the ČNS separated in 1993, but remain in close cooperation. The SNUS counts 548 individual and 31 corporate members. Its current



President is Prof. Vladimir Slugen, [vladimir.slugen@elf.stuba.sk](mailto:vladimir.slugen@elf.stuba.sk). The SNUS is proud to have several active sections: Seniors, Young Generation, WIN, Radiation Protection, Radiochemistry, Radioenvironmentalists, Communications. It holds Annual General Assemblies (registration free), with YG or WIN embedded Topical Meetings. The very first International Youth Nuclear Congress was held in Bratislava in 1998; the SNUS is grateful to ANS Past President John Graham, who was the driving force behind IYNC 1998.

Slovakia has the following nuclear installations:

- 6 VVER-440 units in operation, 2 suspended, 1 decommissioned:
  - Bohunice V1 (V230) units 1 and 2, commissioned in 1978, 1980
  - Bohunice V2 (V213) units 3 and 4, commissioned in 1984, 1985
  - Mochovce (V213) units 1 and 2, commissioned in 1998, 2000
  - Mochovce (V213) units 3 and 4, to be completed by new owner
  - Bohunice A1 (GCHW) 150 MW, decommissioned in 1977
- Bohunice Radwaste Treatment & Conditioning Complex
- Mochovce National Repository for low-level and medium-level waste.

Slovakia made a commitment to close the V1 units in 2006 and 2008 respectively, as a precondition for accession to the European Union. This commitment was accepted under strong political pressure from the EU, based on a G7 statement from Munich 1992 that the units were “non-upgradeable”. Nonetheless the units have operated safely and economically! Bohunice V1 units underwent safety upgrading, completed in 2000, and international missions found that V1 units meet European safety standards.

A recent survey found that 80% of Slovak citizens were in favor of nuclear-power-plant operation, and in favour of completing Mochovce units 3, 4; 60% were against Bohunice V1 closure. The International Conference GO NUKE SLOVAKIA, organized by the SNUS and held May 5-6, 2004, heard recommendations to complete Mochovce Units 3 and 4 and to renegotiate the commitment to close Bohunice Units 1 and 2 for EU in 2006 and 2008 respectively, as there are no safety, environmental or economic reasons to close them after their upgrading. In fact, Minister of the Economy Pavol Rusko launched initiatives in both directions after the Conference.

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- **The second speaker was [Ms. Anneli Nikula](#)**, Vice President, CSR and Communication, Teollisuuden Voima Oy of Finland, who gave a presentation on “Finland’s Successful Nuclear and Energy Policies”.



Teollisuuden Voima Oy was founded in 1969. It operates the nuclear reactors Olkiluoto 1 and 2, which are 840-MW BWRs of the Westinghouse design. The

reactors went into production in 1979 and 1982 respectively, and were modernized and upgraded in the period 1994-1998. Olkiluoto's capacity factor has been consistently high, and has average more than 96% in the last 5 years.

Electricity supply in Finland in 2003 totaled 84.7 TWh, of which nuclear represented 25.8%, coal 21.6%, natural gas 13.0%, hydro 11.0%, peat 7.6%, wind 0.1%, other renewables 13.1 %, oil 2.1%, and imports 5.7%.

The decision-in-principle to build a new plant, Olkiluoto 3, was confirmed by the Finnish Parliament in May 2002. The rationale for building a new nuclear plant is:

- to partially cover the additional electricity demand and replace old power plants
- to secure a stable and predictable electricity price
- to enable, together with renewables, the fulfillment of Finland's Kyoto commitment [Finland's CO<sub>2</sub> release was 70 million tons, and its Kyoto target is 54 million tons] and
- to reduce the dependence on electricity imports.

Public attitudes toward nuclear power have improved steadily over the low of 1986 (the result of the Chernobyl accident). In 2003, almost 70% of people were of the opinion to maintain or increase the use of nuclear power.

The Olkiluoto 3 Project in a nutshell:

- Investment decision, signing of contract and start of project: 18 December 2003
- Total budget: about 3 Billion €
- Reactor Type: EPR, electric output approximately 1600 MW
- Supplier: Consortium Framatome/Siemens
- Excavation start: February 2004
- Construction Period: 2005-2007
- Commissioning: 2007-2008
- Commercial operation: 2009

The Plant Contract is a fixed-price, turnkey contract, including: engineering, licensing, manufacturing and procurement, construction work (TVO responsible for excavation), installation, testing and implementation, plant performance, schedule and quality.

**The Olkiluoto 3 Project is progressing according to plan:** As of October 2004, plant engineering, site preparatory works, sourcing and manufacturing are on track, all licenses and permits needed to this point have been granted, and the project has been ISO 9000 certified:

## *Presentation of Slovak Nuclear Society Honorary Diplomas*

Following his presentation on nuclear activities in the Slovak Republic, Secretary General Suchomel acknowledged the assistance provided to the Slovak Nuclear Society (SNUS) by the following ANS members, and presented them with honorary diplomas:

- [W. Reed Johnson](#) (photo on right), for his service as Liaison Officer with the SNUS, and



- [Jan van Erp](#) (photo on left), for his service as Expert Trainer of Slovak nuclear scientists and engineers.

## *Proposal to Add a Third Non-US Board Member*

ANS Past President Edward (Ted) L. Quinn noted that the reorganization of the ANS Board in 1998 (mandated by the implementation of the 1996-1998 Strategic Plan) reduced the number of international members on the Board from 3 (the historical number) to 2. As a result, one international region has since then been absent from the Board. Past President Quinn consequently presented a proposal to the International Committee to approve a motion to the ANS Board of Directors to add a third International member to the Board. The rationale for this motion was to re-establish continuity of representation from the Americas, Asia/Pacific, and European regions, better represent the regions of the world on the ANS Board, to enhance co-ordination and co-operation in meetings and nuclear programs, and to better engage the ANS in regional affairs. **After discussion, this motion was moved by IC member Rolland A. Langley and seconded by IC Vice Chair H. Peter Planchon, and was unanimously approved. Chair Brès-Tutino subsequently submitted this motion to the Board, which approved it unanimously.** The Bylaws and Rules Committee is currently implementing this Board decision.

## **Young Generation Corner**

### *Let us meet in Croatia!*

**The 2005 European Nuclear Young Generation Forum** will take place from **7 to 12 June 2005** in **Zagreb (Croatia)**. It will be organized by the Croatian Nuclear Society Young Generation Network at the Faculty of Electrical Engineering and Computing. The aim of this Forum is to enlarge and empower the YG networking among the professionals in the world, with a special **YG Networking Day**.



A major highlight of the meeting will be the celebration of **the 10th ENS YGN Anniversary**. In order to prepare the 2006 International Youth Nuclear Congress, the Executive Committee will also meet in Zagreb. In addition, the Forum is including a Waste management Workshop and technical tours to the Krsko nuclear power plant in Slovenia and to the Institute for Nuclear Technology of Zagreb.

Visit: <http://forum2005.zpf.fer.hr>

## ***IYNC-2006!***

The **2006 International Youth Nuclear Congress - IYNC**, will take place in **Stockholm (Sweden) and Olkiluoto (Finland)** from **18 to 23 June 2006**.

## **People**



[Dr Bertrand Barré](#), of France, ANS Board member and International Committee member, Vice President, Scientific Communications for AREVA and President of the European Nuclear Society, has been elected Chair of the International Nuclear Societies Council for the 2005-2006 term, replacing Jorge Spitalnik. The website of the INSC is at [www.ne.jp/asahi/mh/u/](http://www.ne.jp/asahi/mh/u/).

[Dr. Jorge Spitalnik](#), of Brazil, Past Chair of the ANS International Committee, has been elected Chair of the International Nuclear Energy Academy for the 2005-2006 term. Jorge was also recently accepted into the Pan American Academy of Engineering.



[Dr. John Luxat](#), of McMaster University (Canada), will succeed Mr. William G. Schneider as the new President of the Canadian Nuclear Society in June 2005, for a one-year term, to June 2006. The website of the Canadian Nuclear Society is at [www.cns-snc.ca](http://www.cns-snc.ca).

## **Societies with Collaboration Agreements with ANS**

The following is a list of nuclear societies with collaboration agreements with the ANS, along with the corresponding website addresses. The Table contains also a few other entries of interest to ANS International Committee members.

Country: Society	Website or E-Mail Address
Argentina: Asociación Argentina de Tecnología Nuclear	-
Armenia: All Armenian Atomic Power Engineers Association	-
Australia: Australian Nuclear Association	<a href="http://www.nuclearaustralia.org.au">www.nuclearaustralia.org.au</a>
Bangladesh Nuclear Society	-
Bulgaria: Bulgarian Nuclear Society	<a href="http://www.bgns.bg">www.bgns.bg</a>
Canada: Canadian Nuclear Society	<a href="http://www.cns-snc.ca">www.cns-snc.ca</a>
China: Chinese Nuclear Society	<a href="http://www.ns.org.cn">www.ns.org.cn</a>
Czech Republic: Czech Nuclear Society	<a href="http://www.csvts.cz/cns">www.csvts.cz/cns</a>
Europe: European Nuclear Society	<a href="http://www.euronuclear.org">www.euronuclear.org</a>
Finland: Finnish Nuclear Society	<a href="http://www.ats-fns.fi">www.ats-fns.fi</a>
France: French Nuclear Energy Society	<a href="http://www.sfen.org">www.sfen.org</a>
Hungary: Hungarian Nuclear Society	<a href="http://www.kfki.hu/~hnucsoc/hns.htm">www.kfki.hu/~hnucsoc/hns.htm</a>
India: Indian Nuclear Society	<a href="http://www.indian-nuclear-society.org.in">www.indian-nuclear-society.org.in</a>
International Nuclear Societies Council	<a href="http://insec.dyndns.org">http://insec.dyndns.org</a>
Israel: Israel Nuclear Society	<a href="mailto:alfassi@bgumail.bgu.ac.il">alfassi@bgumail.bgu.ac.il</a>
Italy: Associazione Nucleare Italiana	<a href="http://www.assonucleare.it">www.assonucleare.it</a>
Japan: Atomic Energy Society of Japan	<a href="http://wwwsoc.nii.ac.jp/aesj/index-e.html">wwwsoc.nii.ac.jp/aesj/index-e.html</a>
Korea: Korean Nuclear Society	<a href="http://www.nuclear.or.kr">www.nuclear.or.kr</a>
Latin America: Latin American Section of the ANS	<a href="http://www.las-ans.org.br">www.las-ans.org.br</a>
Malaysia: Malaysian Nuclear Society	<a href="http://www.mint.gov.my/mns">www.mint.gov.my/mns</a>
Mexico: Sociedad Nuclear Mexicana	<a href="http://lairn.fi-p.unam.mx/snm/">http://lairn.fi-p.unam.mx/snm/</a>
Morocco: Association des Ingénieurs en génie atomique du Maroc	-
Pacific Rim: Pacific Nuclear Council	<a href="http://www.pacificnuclear.org">www.pacificnuclear.org</a>
Romania: Romanian Nuclear Energy Association	<a href="http://www.aren.ro">www.aren.ro</a>
Russia: Nuclear Energy Society of Russia	-
Slovak Republic: Slovak Nuclear Society	<a href="http://www.nuc.elf.stuba.sk">www.nuc.elf.stuba.sk</a>
United Kingdom: British Nuclear Energy Society	<a href="http://www.bnes.org.uk">www.bnes.org.uk</a>
Vietnam: Vietnamese Nuclear Society	-

## Mark Your Calendar

### Some Upcoming International Conferences on Nuclear Topics

(Please let us know your upcoming conferences for inclusion in this space)

## 2005

- 4-8 April: WIN GLOBAL International Meeting, Cesky Krumlov near Prague, Czech Republic (organized by the Czech Nuclear Society) – <http://www.win-global.org>
- 10-13 April: RRFM – 9<sup>th</sup> International Topical Meeting on Research Reactor Fuel Management – Budapest, Hungary – <http://www.euronuclear.org>

- 17-21 April: Monte Carlo 2005, Chattanooga, Tennessee, USA (organized by ANS) - [meetingsandconferences.com/MonteCarlo2005](http://meetingsandconferences.com/MonteCarlo2005)
- 17-22 April: International Conference NAMLS-8, 8th Nuclear Analytical Methods in the Life Sciences, Rio de Janeiro, Brazil (organized by CENA and SBM) – <http://www.cena.usp.br/namls8>
- 25-29 April: 5ICI - 5th International Isotopes Conference, Brussels, Belgium – <http://www.jrc.nl/5ici>
- 8-11 May: Waste Management, Decommissioning and Environmental Restoration for Canada's Nuclear Activities, Ottawa, Ontario, Canada (organized by the Canadian Nuclear Society) – <http://www.cnc-snc.ca>
- 15-19 May: 2005 International Congress on Advances in Nuclear Power Plants (ICAPP 2005), Seoul, Korea (organized by the Korean Nuclear Society) – <http://www.icapp2005.org>
- 16-20 May: ICONE-13 – 13th International Conference on Nuclear Engineering, Beijing, China (organized by the Chinese Nuclear Society) – <http://www.ns.org.cn/icone2005>
- 22-29 May: 1st International Nuclear Chemistry Congress, 1-INCC, Kusadasi, Turkey (organized by the International Nuclear Chemistry Society, INCS)
- 5-9 June: ANS Annual meeting, San Diego, CA, USA – <http://www.ans.org/meetings>
- 5- 9 June: Space Nuclear Conference 2005 (SNC '05) - during the ANS annual meeting – San Diego, CA, USA: <http://www.ans.org/goto/space>
- 13-16 June: Symposium of the Latin American Section of the ANS, “Maintaining the Nuclear Option in Latin America”, Rio de Janeiro, Brazil – <http://www.las-ans.org.br>.
- 24-28 June: 16th International Symposium on Radiopharmaceutical Chemistry, Iowa City, Iowa, USA, <http://ISRC2005@uiowa.edu>
- 13-15 July: International Hydrogen Energy Congress & Exhibition, Istanbul, Turkey, <http://www.ihec2005.org/committees.asp>
- 8-12 August: **SMIRT** 18, 18<sup>th</sup> International Conference on Structural Mechanics in Reactor Technology, Beijing, China – <http://www.smirt18-org.cn>
- 14-19 August: 40th IUPAC Congress: Innovation in Chemistry, Beijing, China, <http://www.IUPAC-Congress05.org.cn>, <http://www.css.ac.cn/IUPAC2005.htm>

- 29 August – 1 September: International Conference on Accelerator Applications 2005 (AccApp'05), Venice, Italy - <http://AccApp05.infm.it>
- 4-9 September: IFSA 2005 – Fourth International Conference on Inertial Fusion Sciences and Applications, Biarritz, France - <http://www.celia.u-bordeaux1.fr/ifsa05/>
- 5-8 September: 4th World Congress in Industrial Process Tomography, Aizu-Wakamatsu City, Fukushima, Japan – <http://www.vcipt.org.uk/wcipt4>
- 11-15 September: PSA'05, Topical Meeting on Probabilistic Safety Analysis, San Francisco, USA – <http://www.ans.org/meetings/psa>
- 12-15 September: M&C 2005- International Topical Meeting on Mathematics & Computation, Supercomputing, Reactor Physics, Nuclear and Biological Applications, Popes' Palace, Avignon, France (organized by the French Section of the ANS) - <http://mcAvignon2005.cea.fr>
- 18-21 September: 9th International Conference on CANDU Fuel, “Fuelling a Clean Future”, Belleville, Ontario, Canada (organized by the Canadian Nuclear Society) – <http://www.cnc-snc.ca>
- 25-29 September – **but deferred to Spring 2006**: International High-Level Radioactive Waste Management Conference, Las Vegas, NV, USA - <http://www.ans.org/meetings>
- 2-6 October: NURETH 11, 11th International Topical Meeting on Nuclear Reactors Thermal-Hydraulics, Popes' Palace, Avignon, France (organized by the French Section of the American Nuclear Society) – <http://nureth11.com>
- 3-6 October: 2005 Water Reactor Fuel Performance Meeting, Kyoto, Japan – <http://www.kyoto-terra.or.jp>
- 9-13 October: GLOBAL 2005, Tsukuba International Congress Center, Ibaraki, Japan – <http://typhoon.tokai.jaeri.go.jp/global2005>
- 18-21 October: Asia-Pacific-Symposium on Radiochemistry, APSORC 2005, Beijing, China, <http://www.ihep.ac.cn/apsorc2005>
- 13-17 November: ANS Winter Meeting, Washington DC, USA – <http://www.ans.org/meetings>
- 20-22 November: 7th CNS International Conference on CANDU Maintenance, Toronto, Ontario, Canada (organized by the Canadian Nuclear Society) – <http://www.cns-snc.ca>
- 11-14 December: ENC 2005, European Nuclear Congress, an ANS/ENS event, Versailles, France (organized by the European Nuclear Society and the French

Nuclear Energy Society ) - <http://www.sfen.fr/enc2005>

## 2006

- 12-15 February: ANS Topical Meetings “9th Emergency Preparedness and Response” and “11th Robotics and Remote Systems for Hazardous Environments”, Salt Lake City, Utah, USA (hosted by ANS Idaho Section) – <http://www.2006sharingsolutions.com>
- 2-6 April: ANS Radiation Protection and Shielding Division Topical Meeting, Carlsbad, New Mexico, USA - <http://www.ans-rpsw-carlsbad.com>
- 10-13 April: RRFM 2005, “Research reactor Fuel Management 2005”, Budapest, Hungary - <http://www.rrfm2005.org>
- 9-12 May: “Climate Change Technology Conference: Engineering Challenges and Solutions in the 21st Century”, Ottawa, Ontario, Canada (organized by Engineering Institute of Canada) – <http://www.ccc2006.ca>
- 29 May – 6 June: WIN GLOBAL International Meeting 2006, Canada’s Technology Triangle, Waterloo & Cambridge, Ontario, Canada (hosted by WIN Canada) – <http://www.win-global.org>
- 4-8 June: ANS Annual Meeting, Reno, Nevada, USA – <http://www.ans.org/meetings>
- 18-23 June: 2006 International Youth Nuclear Congress - IYNC, Stockholm (Sweden) and Olkiluoto (Finland)
- 10-14 September: ANS Topical Meeting: Physics of Reactors 2006 (PHYSOR-2006), Vancouver, British Columbia, Canada (organized and hosted by Canadian Nuclear Society) – <http://www.cns-snc.ca/physor2006>
- 15-20 October: 15th Pacific Basin Nuclear Conference (15PBNC), Sydney, Australia (organized by Australian Nuclear Association and Institute of Engineers Australia)
- 12-16 November: ANS Winter Meeting, Albuquerque, New Mexico, USA – <http://www.ans.org/meetings>

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